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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/571,065

03/08/2006

Hiroshi Onda

4074-26

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23117

7590

04/16/2008

NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

EXAMINER

VILLALUNA, ERIKA J

ART UNIT

PAPER NUMBER

2852

MAIL DATE

DELIVERY MODE

04/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/571,065	<b>Applicant(s)</b> ONDA ET AL.	
	<b>Examiner</b> ERIKA VILLALUNA	<b>Art Unit</b> 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/8/06, 12/27/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 11, 13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamezaki et al. (JP 63-271487 A).

Regarding claims 9 and 13, Kamezaki et al., hereinafter Kamezaki, discloses an image forming device (fig. 1) comprising: a developing device for developing an electrostatic latent image comprising: a stirring roller (6) having stirring blades (5) for stirring a developer; a developing roller (3) for transferring the developer to an electrostatic latent image; a control member (23) for controlling the amount of developer transferred to the electrostatic latent image by said developing roller; and a reflux plate (17) for flowing back excess developer by controlling of said control member to said stirring roller (Abstract, Constitution, II. 1-5); wherein one end portion (bottom left portion of plate 17; fig. 1) of said reflux plate is disposed in the vicinity of the outer periphery of said stirring roller (bottom left portion of plate 17 is in vicinity of roller 6), and a part of the developer stirred by said stirring roller flies toward said reflux plate, characterized in that said one end portion of said reflux plate is disposed above the fly peak point in the vertical direction of said one end portion of the developer provided by rotation of said stirring roller (bottom left portion of plate 17 is disposed above an area where developer

Art Unit: 2852

flies), said one end portion of said reflux plate is disposed at a position where a plane passing through the rotation center axis of said stirring roller crosses said reflux plate at right angles (a plane parallel to the plane of paper passes through the rotation center axis of roller 6 and also passes through the plate 17 at a right angle), and an inclination angle of said reflux plate is larger than an angle of repose of the developer (inclination angle of plate 17 is required to be larger than an angle of repose for plate 17 to perform the desired function of guiding surplus developer from to roller 6).

Regarding claims 11 and 15, Kamezaki discloses a developer supplying portion (developer supplying portion with stirring member and supply port; fig. 1) for supplying the developer, wherein said stirring roller is disposed between said developer supplying portion and said developing roller (roller 6 is disposed between supplying portion and roller 3), and said one end portion of said reflux plate is disposed in the vicinity of the outer periphery on said developer supplying portion side of said stirring member (bottom left portion of plate 17 is disposed in the vicinity of the developer supplying portion side of roller 6).

### ***Claim Rejections - 35 USC § 103***

Claims 10, 12, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamezaki in view of Kawai et al. (JP 09-068869 A).

Regarding claims 10, 12, 14, and 16, Kamezaki discloses the invention as set forth above.

Kamezaki is silent on developer characteristics.

Kawai et al. teaches developer contains magnetic powder having an average grain diameter of 65  $\mu\text{m}$  or smaller (50-130  $\mu\text{m}$ ) and toner having an average grain diameter of 7.5  $\mu\text{m}$  or smaller (6-10  $\mu\text{m}$ ).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the developing device of Kamezaki with the developer characteristics of Kawai et al. to provide an image forming device executing high-image quality. See Kawai et al., Abstract, Problem To Be Solved.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIKA VILLALUNA whose telephone number is (571)272-8348. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David M. Gray can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David M Gray/  
Supervisory Patent Examiner, Art Unit 2852

EV